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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,175	02/27/2002	Barry Lynn Butler		1719

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Dr. Barry Lynn Butler  
980 Santa Estella  
Solana Beach, CA 92075

EXAMINER

CLARKE, SARA SACHIE

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/085,175

Applicant(s)

BUTLER, BARRY LYNN

Examiner

Sara Clarke

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *General Information*

Applicant should carefully review this general information. The general information contained in this section deals with problems that frequently arise in pro se applications. This information is not inclusive of all rules, but is merely a summary of problems and questions that frequently arise for pro se applicants.

It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Serial number (checked for accuracy).
2. Group art unit number (copied from filing receipt or most recent Office Action).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.

It is called to applicant's attention that if a communication is mailed before the response time has expired applicant may submit the response with a "Certificate of Mailing" which merely asserts that the response is being mailed on a given date. So mailed, before the period for response has lapsed, the response is considered timely. A suggested format for a certificate follows:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Assistant Commissioner for Patents  
Washington, D.C. 20231

on \_\_\_\_\_ (date).

(Typed or printed name of person signing this certificate)

Signature \_\_\_\_\_

Date \_\_\_\_\_

The Certificate of Mailing should be used to respond to Office Actions. (Use of this clause will protect Applicant in case a response is mailed at or near the end of the response period and in circumstances when the response is unduly delayed by the mail.)

Additionally, Applicant may want to send a self-addressed, stamped post-card (stating what papers are being submitted) along with any correspondence to be certain that the PTO has received the submission. (This is not required, but suggested so that Applicant will know that a paper has been received and have evidence of its receipt.)

Papers in an application which have received a filing date pursuant to 37 C.F.R. § 1.53 will not be returned for any purpose whatever. If applicant has not preserved copies of the papers, the Office will furnish copies at applicant's expense. See 37 C.F.R. § 1.19 for a list of the current fees.

In responding to an Office Action, Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

If Applicant attempts to amend the claims, the original numbering of the claims must be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When claims are added, except when presented in accordance with 37 CFR 1.121(b), they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

The manner for amending the claims is set forth in 37 CFR 1.121(c) below:

(c) Claims. Amendments to a claim must be made by rewriting the entire claim with all changes (e.g., additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) Claim listing. All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (e.g., Claims 1-5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

(2) When claim text with markings is required. All claims being currently amended in an amendment paper shall be presented in the claim listing, indicate a status of "currently amended," and be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. Only claims having the status of "currently amended," or "withdrawn" if also being amended, shall include markings. If a withdrawn claim is currently amended, its status in the claim listing may be identified as "withdrawn--currently amended."

(3) When claim text in clean version is required. The text of all pending claims not being currently amended shall be presented in the claim listing in clean version, i.e., without any markings in the presentation of text. The presentation of a clean version of any claim having the status of "original," "withdrawn" or "previously presented" will constitute an assertion that it has not been changed relative to the immediate prior version, except to omit markings that may have been present in the immediate prior version of the claims of the status of "withdrawn" or "previously presented." Any claim added by amendment must be indicated with the status of "new" and presented in clean version, i.e., without any underlining.

(4) When claim text shall not be presented; canceling a claim.

(i) No claim text shall be presented for any claim in the claim listing with the status of "canceled" or "not entered."

(ii) Cancellation of a claim shall be effected by an instruction to cancel a particular claim number. Identifying the status of a claim in the claim listing as "canceled" will constitute an instruction to cancel the claim.

(5) Reinstatement of previously canceled claim. A claim which was previously canceled may be reinstated only by adding the claim as a "new" claim with a new claim number.

It is generally easier to cancel the pending claims and submit new claims to avoid problems with the rules on amendments. New claims should be numbered starting with the next number.

This application is informal in the arrangement of the specification. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

### ***Oath/Declaration***

The declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The declaration is defective because:

It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either on an application data sheet or supplemental oath or declaration.

The wording of an oath or declaration cannot be amended. If the wording is not correct or if all of the required affirmations have not been made or if it has not been

properly subscribed to, a new oath or declaration is required. The new oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

### ***Drawings***

The drawings are objected to because different views, on pages 2 and 3 of the drawing sheets, have not been labeled in consecutive Arabic numerals. See 37 CFR 1.84(u).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. See 37 CFR 1.85(a).

### ***Specification***

The disclosure is objected to because it is replete with informalities. For example: On page 3, line 12, "buy" should be "by." On page 3, line 18, "loosing" should be "losing." On page 5, line 8 from the bottom, "who's" should be "whose." Appropriate correction of **all** such informalities is required.

### ***Claim Objections***

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claims 5-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims 5-8 have not been further treated on the merits.

The claims are objected to because they are not in a single sentence format. Each claim must begin with a capital letter and end with a period. Periods may not be used elsewhere in the claims except for abbreviations. See MPEP 608.01(m). Appropriate correction is required.

Claim 3 is objected to because of the following informalities: In claim 3, line 3, "systems" should be "system's." In claim 3, line 5, "A set to of damper the valves" is awkward and thus difficult to understand. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, and 4 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claims are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. Note the format of the claims in the patents cited.

In claim 1, line 7, there is no antecedent basis for "The means to prevent damage from freezing in winter environments." See MPEP § 2173.05(e).

In claim 1, line 8, is the "hot water tank with an easily adaptable internal heat exchanger" the same element as the "hot water tank" on line 2?

In claim 1, line 10, relative to what is the "means to deliver" better?

In claim 2, line 3, there is no antecedent basis for "The boiling gas separator."

In claim 2, line 6, there is no antecedent basis for "the system fluid loop."

In claim 4, line 2, there is no antecedent basis for "the solar collector" and "the hot water tank."

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Embree (US 4269167).

Embree discloses the invention as claimed including a pressurization system (col. 5, lines 54 - col. 6, line 2), said pressurization system prevents boiling and is thus an overheat protection system as discussed in the section of the specification listed above, means to prevent damage from freezing by drainage (col. 2, lines 54-56), and means to deliver heat (return line 14).



Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Goto et al. (JP 59-93149 A).

Goto et al. discloses the invention as claimed including a boiling gas separator 9 and a filler tube 10.

Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Zinn (US 4399319).

Zinn discloses the invention as claimed including an umbilical assembly, which carries and insulates (outer jacket 14 is insulative) a heat transfer fluid and includes conductors 13,13A for making electrical circuits.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakakoshi et al. (JP 61-122457 A) in view of Scharfman (US 4043317).

Nakakoshi et al. discloses the invention substantially as claimed including a pressure sensor 10 to prevent overheating of the system. Nakakoshi et al. does not disclose dampers.

Scharfman discloses a solar panel having an overheat protection system including dampers 28a,30a to permit cool air circulation to maintain the temperature of the collector.

Thus, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to provide the collector system of Nakanoshi et al. with the dampers disclosed by Scharfman to permit cool air circulation to maintain the temperature of the collector.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dinh (US 4557252), Pei (US 4282857), and Palmer (US 4219009) disclose various solar collector protections systems. Paige (US 1959302) discloses a cable having a fluid conduit and conductors.


### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Clarke whose telephone number is (703) 308-1388. The examiner can normally be reached Thurs and Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-

0861

  
Sara Clarke  
Primary Examiner  
Art Unit 3743

September 20, 2003